

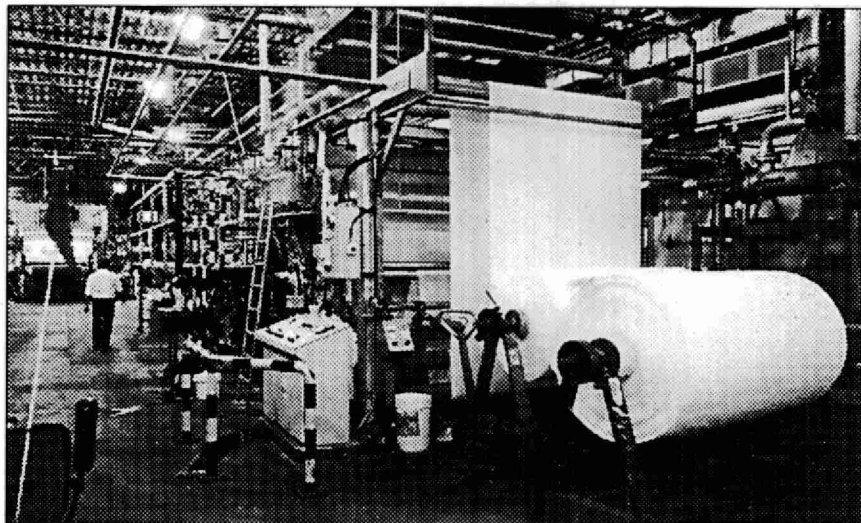
CONSOLTEX INC.

Alexandria, Ontario



"We at Consoltex are committed to protecting and conserving the environment. We want to continually improve the quality of our effluent, reduce energy consumption and use resources more efficiently. The Green Analysis of our operation was very helpful to us in these endeavours."

Donald Racine
Plant Manager
Consoltex Inc.



Tenter frame for finalizing fabric width.

THE COMPANY

Consoltex Inc. Outerwear Division, located in Alexandria, Ontario, dyes fabric for outerwear manufacturers. The plant has expanded twice since 1973 and operates six days a week, three shifts a day. It is the major user of water and energy in Alexandria.

THE CHALLENGE

Management at Consoltex realized that they could achieve large savings by reducing the plant's water and energy use. The company also wanted to improve the quality and reduce the quantity of effluent from its plant.

Mauder & Britnell, a firm of consulting engineers with considerable experience in the textile industry, was hired to analyse plant operations and identify opportunities for reducing energy and water use and effluent.

OPPORTUNITIES

The analysis focused on the following areas considered to be high priority by plant management:

- * reducing water consumption in the dyeing process;
- * saving gas and electricity throughout the operation;
- * studying a steam distribution and condensate recovery system for ways to reduce losses;

- * investigating the potential and economics of a monitoring and targeting program for the plant.

RECOMMENDATIONS

The analysis identified 12 opportunities which would reduce water use by 31 per cent, electrical energy use by 40 per cent and natural gas consumption by 14 per cent.

The major recommendations were to:

- * implement a monitoring and targeting program in the plant to reduce energy use. At a cost of \$170,000, this program would save \$63,937 a year, for a payback of 2.66 years;
- * install additional water storage and heat exchange equipment to recover heat and cut water consumption. An annual saving of \$89,537 would mean a payback on the initial investment of 3.6 years;
- * install a new water storage tank to collect low temperature first rinse water from some equipment and heat it with another stream of higher temperature waste water going to the sewer. This would conserve large amounts of water and steam;

- * start a maintenance program for the steam trap and distribution system to reduce losses. This would result in an immediate annual saving of \$65,106.

Consoltex has started to carry out these suggestions. The improvements recommended in the study could be duplicated in other dyeing operations in Ontario.

POTENTIAL SAVINGS

Annual savings from carrying out the recommendations were estimated as follows:

Electricity	\$207,183
Natural gas	95,538
Liquid effluent	18,545
Water	65,751
Steam generation	136,860
Total	\$523,877

To realize these savings, the company would have to make a capital investment of \$1,770,816. The simple payback would be 3.4 years, taking operating costs into account.

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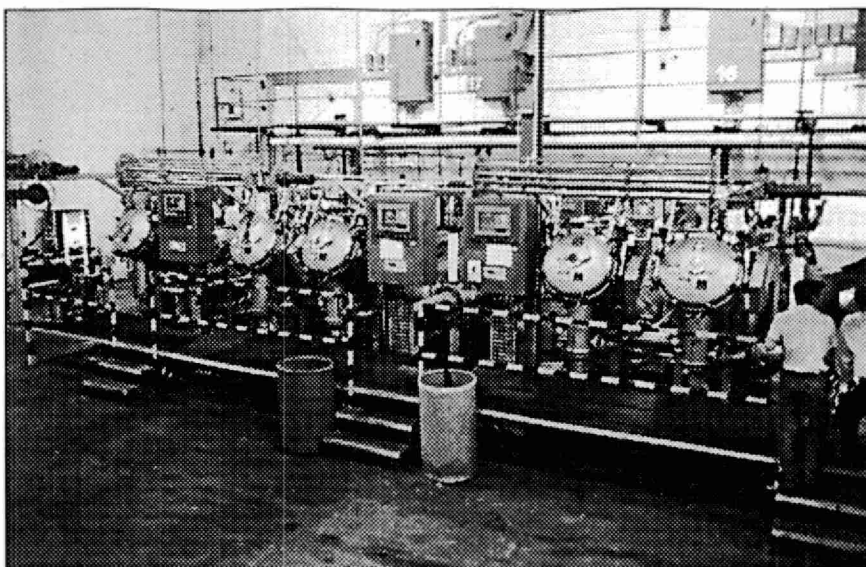
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Industrial companies doing business in Ontario may seek ministry/ industrial services that will help them to:

- * use energy and water more efficiently;
- * reduce, reuse and recycle solid waste; and
- * reduce or eliminate liquid effluent and gaseous emissions.

Equipment and services supply companies can benefit from the information provided on technologies identified for business development.



Jets for dyeing fabrics.

FOR FURTHER INFORMATION, PLEASE CONTACT:

Donald Racine
Plant Manager
Consoltex Inc.
600 St. George St. W.
Alexandria, Ontario
K0C 1A0
Tel: (613) 525-4241
Fax: (613) 525-4168

Gordon Maunder, P.Eng.
Maunder and Britnell Inc.
500 Cochrane Dr., Unit A
Markham, Ontario
L3R 8E2
Tel: (905) 474-0816
Fax: (905) 474-0137

Bob Walterson
Industry Conservation Branch
Ministry of Environment and Energy
2 St. Clair Ave. W., 14th Floor
Toronto, Ontario M4V 1L5
Tel: (416) 327-1451
Fax: (416) 327-1261

MINISTRY OF ENVIRONMENT AND ENERGY SERVICES

For information on Ministry of Environment and Energy assistance to industry, please contact the Industry Conservation Branch at (416) 327-1492, Fax (416) 327-1261.

This project profile was prepared and published as a public service by the Ontario Ministry of Environment and Energy. Its purpose is to transfer information to Ontario companies about findings and recommendations of a resource conservation and environmental analysis conducted by a consulting engineering firm at an industrial plant in Ontario.

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